

## APPENDIX C

Industrial Safety and Health Requirements for:

**PR/Contract/Project#:** FD2060-15-91493

**Date:** 10 February 16

**Type Work:** Engineering Manufacturing & Development, Production, and Sustainment of a new common Bomber Armament Tester (BAT)

### PART I

**Instructions:** The contractor Safety and Health Plan (required IAW AFI 91-202, AFMC Supp 1 and AFPAM 91-210) shall address in detail the items listed in Parts II and III, **as applicable**. Repeating the referenced standard without addressing the company's specific processes or procedures will not suffice. If task specific procedures are incorporated into a company local document, those procedures must be attached to the submitted Safety and Health Plan. Referencing the company's local procedure/document in the Safety and Health Plan is not adequate. If the company's local procedure/document is not attached, the submitted Safety Plan will be returned unacceptable.

### PART II

**1. Environmental, Safety, And Occupational Health (ESOH):** The contractor is solely responsible for compliance with all federal, state and local laws, the Occupational, Safety and Health Act (Public Law 91-596) and the resulting standards, **OSHA Standards 29 CFR 1910 and 1926**, as applicable, and the protection of their employees. Additionally, the contractor is responsible for the safety and health of all subcontractor employees.

**2. Voluntary Protection Programs (VPP):** The Air Force is part of OSHA's VPP. All contractors are required to familiarize themselves with the requirements of VPP. Information on VPP can be accessed at <http://www.osha.gov>. The intent of the Air Force Safety Program is to prevent injuries and to communicate our safety expectations with potential offerors as well as those contractors awarded a government contract. The Air Force's interest is to protect personnel working in or around contractor operations, and to protect Air Force equipment/property.

**3. Contractor Employees:** Compliance with OSHA and other applicable laws and regulations for the protection of contractor employees is exclusively the obligation of the contractor. **Note:** The Air Force Occupational Safety Instruction is frequently annotated because many of the Air Force standards exceed the OSHA standard criteria. If a conflict is noted, the most stringent requirement takes precedence. The government shall assume no liability or responsibility for the contractor's compliance or non-compliance with such requirements. The contractor shall furnish to each of his/her employees a place of employment, which is free from recognized hazards. The contractor shall brief his/her employees on the safety requirements of this contract and on

hazards associated with prescribed tasks. The contractor is responsible for compliance with OSHA Public Law and the resultant standards identified within. In addition, the contractor is required to flow down the safety requirements/specification to all subcontractors. This applies to Federal Acquisition Regulation (FAR) Part 12 commercial acquisitions as well. This contract shall in no way require persons to work in surroundings or under working conditions which are unsafe or dangerous to their health. The contractor must coordinate and perform work so as not to impact the safety of government employees or cause damage to government property. This requires providing personnel with protective equipment and associated safety equipment as may be necessary. The contractor must also protect personnel from hazards generated by the work. If the contractor employs bilingual speaking employees, they must post bilingual signs and have written procedures for specific tasks in applicable languages.

**4. Inspections:** Air Force Environmental, Safety, Occupational Health and Fire protection officials or responsible Quality Assurance Evaluator (QAE) may periodically enter a contractor's workplace to verify working conditions of Air Force personnel. If an Air Force employee observes improper procedures or unsafe conditions exists which place Air Force personnel or equipment/facilities in jeopardy, the contractor will remove personnel and/or equipment from the unsafe condition and immediately notify the Contracting Officer and the Installation Safety Office. Department of Labor (DoL), **OSHA** inspectors are authorized right of entry to inspect any place of employment operated by an Air Force contractor. They can be considered "no notice" inspections. **Note:** Notify the Installation Safety Office at (478)-926-6271 if an OSHA inspector visits your site unescorted by an Air Force Safety Technician. Noncompliance with safety requirements can result in work stoppage, inexcusable delays, and/or costly fines issued by the DoL. The government shall assume no liability or responsibility for the contractor's compliance or non-compliance with such requirements. Fines and additional costs for violations levied against the contractor as a result of OSHA findings, and/or installation safety, fire, health or environmental are the sole responsibility of the contractor and shall not be passed through to the Government.

**5. Mishap Notification:** When government assets are involved in a mishap several notifications are required:

- 1) Provide notification to AFLCMC Safety office telephonically at (937) 904-3386 during duty hours and (937) 510-1184 after hours.
- 2) The contractor shall notify the Installation Safety Office telephonically at (478)-926-6271 during duty hours and (478)-327-2612 after hours, within four hours after initial notification of all mishaps or incidents for damage to DoD property.
- 3) The contracting Program Office also needs to be included within the same time frame: as well as notifying the program office at (478) 222-2100 during duty hours.

NOTE: Notification of #2 & 3 are required as they will be supporting the mishap investigation.

Mishap notifications shall contain, at a minimum, the following information:

- Contract, Contract Number, Name and Title of Person(s) Reporting
- Date, time and exact location of accident/incident
- Brief narrative of accident/incident (Events leading to accident/incident)
- Cause of accident/incident, if known
- Estimated cost of accident/incident (material and labor to repair/replace)
- Nomenclature of equipment and personnel involved in accident/incident
- Corrective actions (taken or proposed)
- Other pertinent information

**6. Impoundment Procedures:** The contractor shall establish written impoundment procedures, as part of their Safety and Health Plan. Impound data must be included in the Mishap Notification Procedures as applicable. As a minimum, the procedures must address:

- a. Appointment of Impound Authority in writing (copy faxed to QAP and Safety Office)
- b. Impound Authority e-mail address and phone numbers
- c. Specific instructions (cordon, facility locked facility, etc.) to secure the site or government asset, to prevent tampering with the aircraft, site or government assets
- d. Specific instructions or measures to ensure only authorized personnel directly involved in management, SAFING, troubleshooting, or repair of aircraft or equipment gain access to the impound site
- e. Additional guidance is located within AFI 21-101, AFMC Supplement 1

**7. Contractor Safety and Health Program:** The contractor shall establish and maintain an acceptable safety and health program.

a. **Contractor Safety and Health Manager.** As part of the Contractor Safety and Health Program, the contractor shall assign in their plan, by name and phone number, a person who will be the primary point of contact for safety and health issues for the on-site operation.

b. **Contractor's Safety and Health Plan.** Contractor shall prepare a safety and health plan in accordance with **PART I, PART II, and PART III**; incorporating the listed elements **in PART II** and addressing in detail the flagged items below **in PART III of this Appendix**. The contractor shall ensure that each element identified below is adequately addressed in detail in the safety and health plan. The plan must be accepted by the government and will be incorporated into the awarded contract. Should a master safety and health plan remain on file with the Installation Safety Office, the contractor must ensure that it is current, updated, and includes all elements below. An addendum to the plan must include the processes noted below:

(1) **Changes to the Plan.** If, during the performance of this contract, changes to the contractor's Safety and Health Plan are required, the contractor shall submit a revised Safety and Health Plan to the Contracting Monitor and/or Contracting Officer's Representative (COR). The same process of review and negotiation (if applicable) involved in the original submission applies to any revision submitted

after contract award. The accepted revised Safety and Health Plan shall then be incorporated by contract modification as an attachment or by reference.

(2) **Tracking Rates.** The Contractor's Safety and Health Plan shall identify how their Total Case Incident Rate (TCIR) and Days Away, Restricted and/or Transferred (DART) rates, or comparable insurance rates or compensation injury rates will be tracked, and the corrective measures to be used if these rates begin to decline. The contractor must also describe the processes and procedures to be used to track their compliance with their Safety and Health Plan and how they will correct any deviations from the plan, when and if identified.

### **PART III**

The following items represent a list of required elements, **as applicable**, for performance of this contract. The contractor's safety and health plan **shall** address how compliance with these requirements will be ensured. The safety plan **shall** clearly define company procedures on specific tasks/processes, personnel qualifications, how facilities comply with fire requirements to include the electrical wiring and fire protection systems installed (i.e., fire suppression, fire detection, fire extinguishers, firewall ratings, etc) required equipment used to accomplish tasks and other necessary requirements to fulfill the checked items for the protection of government personnel and property. The contractor's safety and health plan **shall** meet, but may exceed the referenced standards.

**1. Pedestrian Crosswalks:** All contractor personnel are required to use the closest crosswalk, or traffic controlled intersection when crossing the road. Pedestrians must look both ways to ensure the coast is clear before stepping out into the crosswalk. Pedestrians **do not** have the right of way unless they are already in the crosswalk. Contractor vehicle operators have the same responsibilities as pedestrians, to share the road and mutually observe and yield to pedestrians.

**2. Motor Vehicles:** Contractor shall comply with the standards in: DoD Directive 5525.4, *Enforcement of State Traffic Laws on DoD Installations*, Nov 2, 1981, paragraphs 3-4; DoDI 6055.4, *DoD Traffic Safety Program*, 20 Jul 99; AFI 91-207, *USAF Traffic Safety Program*, 22 May 07; and AFI 91-207, AFMC Supp 1, 1 Oct 07. Each applies to all persons at any time on an Air Force installation and includes all leased, owned, or privatized property including housing areas. In addition, AFI 13-213, *Airfield Management*, 29 Jan 08, paragraphs 1.3.6 and 4.4.2.1 and applicable local guidance applies to all contractors, sub-contractors, vendors, commercial delivery companies, and all other private business vehicles who operate anywhere on an Air Force installation, including the airfield (to include the industrial areas and any buildings or hangars located upon the airfield) in support of their mission. **Note:** Installation commanders of all DoD installations in the United States and over which the United States has exclusive or concurrent legislative jurisdiction are delegated the authority to establish additional vehicular and pedestrian traffic rules and regulations for their installations. All persons on a military installation shall comply with locally established vehicular and pedestrian traffic rules and regulations. A person found guilty of violating, on a military installation, any State vehicular or pedestrian traffic law or local DoD 5525.4, paragraph 3 – 4: Pursuant to the authority established in Enclosure 1, installation vehicular or pedestrian traffic rule or regulation made

applicable to the installation under the provisions of this directive is subject to a fine of not more than \$50 or imprisonment for not more than 30 days, or both, for each violation (40 U.S.C., Section 318c (reference d)).

**3. Housekeeping:** Housekeeping shall be conducted according to the requirements in OSHA Standard 29 CFR 1910.141. **Clean as you go** will be enforced. Refuse, trash, and debris will be collected daily and not left on site to prevent hazards during high winds and inclement weather.

**4. Walking/Working Surfaces:** Contractor shall comply with the standards in: 29 CFR 1910, Subpart D and NFPA 101, *Life Safety Code*. All interior walking and working surfaces which are part of the means of egress shall **remain clear at all times** and comply with the requirements of NFPA 101. Floors shall be kept in good condition and free of defects that can endanger workers or interfere with the handling of materials. Housekeeping – methods and controls are in place to minimize tripping hazards, the accumulation of flammable/combustible materials, etc. Portable metal ladders – methods and controls are in place to ensure inspection and safe use. Open-sided floors/platforms/runways must be protected and not left uncovered to prevent injury.

**5. Personal Protective Equipment:** Contractor shall comply with the standards in: 29 CFR 1910.132, 134, 136, Subpart I and 29 CFR 1926.28, 95, 100, 101, 102, & 951. Personnel protective equipment is required to be worn when employees are exposed to a potential hazard, working overhead, falling objects, etc. Contractor's Safety Plan shall also address:

- Eye and face protection
- Head protection
- Foot Protection
- Electrical protective equipment
- Hand protection
- Safety harnesses, life lines, and lanyards.

**6. Hearing Conservation Program Elements:** Contractor shall comply with the standards in: 29 CFR 1910.95 and 29 CFR 1926.52. **Note:** Noise exposures are based on ACGIH guidelines of 85 dB TWA. Contractor's Safety Plan shall also address:

- Monitoring (survey of noise producing equipment)
- Audiometric testing
- Hearing Protectors
- Training
- Recordkeeping/Access to information and training material

**7. Medical and First Aid:** Contractor shall comply with the standards in: 29 CFR 1910, Subpart K and 29 CFR 1926, Subpart C. Contractor's Safety Plan shall also address:

- Adequate first aid supplies
- Trained employee to render first aid
- Recordkeeping
- Reporting and investigating accidents/incidents

- Off-site physician(s)
- Maintenance of and employee access to exposure monitoring data and medical records

**8. Respiratory Protection Program Elements:** Contractor shall comply with the standards in: 29 CFR 1910.134 and 29 CFR 1926.134. Respirators are required to be worn if employees are exposed to inhalation hazard. Contractor's Safety Plan shall also address:

- Training
- Medical evaluation
- Fit tests
- Selection of respiratory equipment
- Storage of respiratory equipment
- Pre-use checks

**9. Confined Space Program Elements:** Contractor shall comply with the standards in: 29 CFR 1910.120, 146 and 29 CFR 1926.21 and 353 and AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 Jun 12, Chap 23. A confined space must meet the following three criteria:

- (1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and
- (2) has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
- (3) is not designed for continuous employee occupancy. **Examples:** underground vaults, tanks, storage bins, manholes, pits, silos, process vessels, and pipelines.

Contractor's Safety Plan shall address:

- Hazards of confined space
- Permit and Non-permit confined spaces
- Responsibilities of management, entry supervisor, authorized entrant, and authorized attendants
- Training requirements
- Permit handling and approval
- Emergency and rescue plans
- Testing and monitoring requirements
- Special hazards
- Posting requirements (applicable to subcontractor operated facilities)

**10. System Modification which Alters Form, Fit or Function:** Contractor shall comply with: Mil Standard 882D, *Standard Practice for System Safety*, 10 Feb 00 and AFI 63-131, *Modification Program Management*, 6 Nov 09, for system modifications, which alter form, fit, or function.

**11. Compressed Gas and Compressed Air Equipment:** Contractor shall comply with the standards in: 29 CFR 1910.169, Subpart M. Contractor's Safety Plan shall also address:

- Employee Training
- Inspections
- Storage and Handling

**12. Materials Handling and Storage:** Contractor shall comply with the standards in: 29 CFR 1926.250, 953, 957 and 29 CFR 1910.101, Subparts F, H & N and 29 CFR 1910.178, *Powered Industrial Truck*. Contractor's Safety Plan shall also address:

- Storage and handling of materials
- Disposal of trash from elevations
- Personnel lifting techniques--proper storage to prevent shifting, for stability, etc.
- Rigging (requirements, inspection, components, and qualifications)
- Equipment (use in handling materials)
- Industrial trucks (training, inspection, maintenance, and safe use)

**13. Handling, Storage, and Use of Flammable/Combustible Liquids:** Contractor shall comply with the standards in: NFPA 30, *Flammable and Combustible Liquids Code*, 2008 Edition, NFPA 33 *Spray Application Using Flammable or Combustible Materials*, 2007 Edition, DoDI 4145.19-R-1, *Storage and Materials Handling*, 15 Sep 79, Chpts 5 & 6, and DoDI 4140.25-M (for POL storage).

**14. Toxic and Hazardous Substances:** Contractor shall comply with the standards in: 29 CFR 1910, Subpart Z and 29 CFR 1926, Subpart Z. Contractor's Safety Plan shall also address a section related to working with toxic and hazardous substances, such as asbestos, benzene, lead, and styrene, where the following areas are addressed:

- Threshold Limit Values (TLV)-Exposure monitoring
- Medical surveillance
- Work practices
- Engineering controls
- Respiratory protection
- Protective clothing (PPE)

**15. Hazardous Communications:** Contractor shall comply with the standards in: 29 CFR 1910.1200. Contractor's Safety Plan shall also address:

- Written Program-list of hazardous chemicals
- Identify the hazardous chemical(s) - labeling system
- MSDS data sheet location
- Employee information and training-methods used to inform employees of the hazards, and precautionary measures

**16. Hazardous Materials:** Contractor shall comply with the standards in: 29 CFR 1910.120, Subpart H – *The Handling and Storing of Hazardous Materials* (chemicals, compressed air, acetylene, etc). When handling the hazardous material the following must be accomplished: Compressed gases – training, handling, storage, use, and PPE; flammable and combustible liquids – training, handling, storage use, and PPE. Contractor’s Safety Plan shall also address:

- Training, handling, storage, use and PPE
- Explosives and blasting agents
- Dipping and coating operations

**17. Hazardous Waste Operations:** Contractor shall comply with the standards in: 29 CFR 1910.120 and 29 CFR 1926.65. Contractor’s Safety Plan shall also address:

- Emergency Response Plan
- Personal Protective Equipment
- Medical Surveillance
- Health and Safety Plan (HASP– required elements have been incorporated)
- Employee Training

**18. Electrical:** Contractor shall comply with the standards in: 29 CFR 1910, Subpart S, 29 CFR 1926, Subpart K, AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 Jun 12, Chap 8, and NFPA 70. All electrical wiring must be IAW *National Electrical Code* (NEC) 70. Electrical wiring and equipment shall be a type listed by UL or another recognized listing agent. Contractor’s Safety Plan shall also address:

- Selection and use of work practices
- Training (basic electrical safety knowledge)
- Use of equipment (handling, visual inspection, rating of equipment)
- GFCI Protection for outside contractor drops and wet/damp areas
- Arc Flash

**19. Hazardous Energy Control Program Elements (Lockout-Tagout):** Contractor shall comply with the standards in: 29 CFR 1910, Subpart S, 29 CFR 1926, Subpart K, AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 Jun 12, Chap 21, and NFPA 70. Contractor’s Safety Plan shall also address:

- Purpose of hazardous energy control program
- Employee training
- Lockout/tagout procedures-Removal of locks and tags
- Periodic inspections
- Restoring equipment to normal operations
- Arc Flash
- Portable Fire Extinguishers (proper type, inspection, maintenance, testing, and training)

**20. Electronic/Electrostatic Discharge Sensitive Components:** An electrostatic discharge program, when applicable, shall be implemented according to: MIL-HDBK-263B, *Electrostatic*



*Discharge Control Handbook for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices)*, 31 Jul 94, MIL-STD-1686C, *Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices)*, 25 Oct 95 and T.O. 00-25-234, *General Shop Practice Requirements for the Repair, Maintenance and Test of Electrical Equipment*, 1 Aug 88/Change 36, 13 Aug 07 or the commercial standard ANSI/ESD S20.20, *Electrostatic Discharge Control Program-Protection of Electrical & Electronic Parts, Assemblies and Equipment*, 4 Aug 99.

**21. Hand and Portable Powered Tools and other Hand-Held Equipment:** Contractor shall comply with the standards in: 29 CFR 1910, Subpart P and 29 CFR 1926, Subpart I. Contractor's Safety Plan shall also address:

- Inspection
- Proper use
- Guarding
- Maintenance
- Control of rotating parts, flying chips, and sparks

**22. Grounding/Bonding of Aircraft and Avionics Equipment:** Contractor shall comply with the standards for grounding and bonding in accordance with T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, 15 Jul 02/Change 12-12 Feb 08, for aircraft repair and T.O. 00-25-234, *General Shop Practice Requirements for the Repair, Maintenance and Test of Electrical Equipment*, 1 Aug 88/Change 36, 13 Aug 07, for avionics equipment.

**23. Batteries:** Contractor shall comply with the standards for battery servicing in accordance with OSHA Standard 29 CFR 1910.178, 29 CFR 1910.305 and site specific applicable aircraft T.O.s.

**24. Soldering:** Soldering shall be conducted in accordance with the requirements in T.O. 00-25-234, *General Shop Practice Requirements for the Repair, Maintenance and Test of Electrical Equipment*, 1 Aug 88/Change 36, 13 Aug 07, Chapter 3 and 29 CFR 1910.253.

**25. Painting and Paint Removal:** Painting and paint removal shall be accomplished according to: T.O. 1-1-8 *Application and Removal of Organic Coatings, Aerospace and Non-aerospace Equipment*, 15 February 06, Change 3/30 January 08; NFPA 33, *Spray Application Using Flammable or Combustible Materials*, 2007 Edition and NFPA 410, *Aircraft Maintenance*, 2004 Edition.

**26. Cleaning/Corrosion Control for Avionics and Electronics:** Corrosion removal and treatment shall be conducted according to: T.O. 1-1-689-3, *Cleaning and Corrosion Control Volume III Avionics and Electronics*, 1 Mar 05; and T.O. 1-1-689-5, *Cleaning and Corrosion Control Volume V Consumable Materials and Equipment for Avionics*. 1 Mar 05.

**27. Fire Protection For Facilities:** Contractor's procedures shall comply with: NFPA 10, *Portable Fire Extinguishers*, 2007 Edition; NFPA 13, *Installation of Sprinkler Systems*, 2007

Edition; NFPA 33, *Spray Application Using Flammable or Combustible Materials*, 2007 Edition; NFPA 70, *National Electrical Code*, 2008 Edition; NFPA 72, *National Fire Alarm Code*, 2007 Edition; NFPA 91, *Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids*, 2004 Edition; NFPA 409, *Aircraft Hangars*, 2004 Edition; NFPA 410, *Aircraft Maintenance*, 2004 Edition; NFPA 418, *Fire Protection for Heliports*, 2006 Edition; NAS 3306, *Facility Requirements for Aircraft Operations*, May 00 and RAFBI 32-2001, *The Fire Protection Operations and Fire Prevention Program*, 24 Sep 04, Change 1, 8 June 07, para 2.5.

**28. Foreign Object Damage (FOD) Awareness, Prevention And Responsibilities:** Contractor shall comply with the standards in: AFI 21-101 AFMC Supp 1, *Aircraft and Equipment Maintenance Management*, 14 Dec 07, paragraphs 14.19 - 14.19.10.1.13; National Aerospace Standard (NAS) 412, *Foreign Object Damage/Foreign Object Debris (FOD) Prevention Program*, Oct 97; AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 Jun 12, Chap 24; and all applicable local guidance. The FOD program must be integrated into the day-to-day operations to reduce/eliminate FOD incidents. Programs will include covering waste dumpsters, waste hauling trucks, barriers in place to stop migrating FOD from dirt and gravel piles, and end of shift or daily clean-up. The contractor will brief their personnel at least weekly on any FOD requirements. All contractors, subcontractors performing maintenance in a FOD-potential area will receive and have documented initial FOD Awareness and Prevention training. For **AFMC organizations**, course number **MHPMAS00001300** may be used to satisfy this requirement. Subject training will be given during Flight Line Drivers Training by the host Base Operations Flight. All vehicle operators are responsible for performing a Foreign Object (FO) inspection on their vehicles including all towed equipment, vehicle tires and open cargo areas of vehicles prior to entering the marked runway, taxiway, flight line, and aircraft parking ramps and other areas as directed by the Installation FOD Awareness and Prevention Officer. All “open-air” delivery vehicles must be free of loose items/debris that could potentially fall from the vehicle and cause a FOD hazard. The cargo beds of pickups truck must be clean or covered prior to entering the airfield. Vehicles will be subject to inspection and denied entry if found unacceptable. Contractors and site/operations evaluators will ensure tools; equipment, rags, residue and hardware are properly stored and accounted for. **“Clean as you go” methods are required.**

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